UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/537,889	06/07/2005	Richard Chi-Te Shen	US02628US	8404

65913 7590 11/15/2010

NXP, B.V.
NXP INTELLECTUAL PROPERTY & LICENSING
M/S41-SJ
1109 MCKAY DRIVE
SAN JOSE, CA 95131

EXAMINER	
RAO, ANAND SHASHIKANT	
ART UNIT	PAPER NUMBER
2482	

NOTIFICATION DATE	DELIVERY MODE
11/15/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No.	Applicant(s)	
	10/537,889	SHEN, RICHARD CHI-TE	
	Examiner	Art Unit	
	Andy S. Rao	2482	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *18-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14,17 and 21* is/are rejected.

7)☒ Claim(s) *15 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/28/10*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the embodiment #1 as depicted in figures 1-2 and as read by claims 1-17 and 21 in the reply filed on 7/28/10 is acknowledged. The traversal is on the ground(s) that since all the claims a video decoder the examination would not impose an examination and search burden on the examiner. This is not found persuasive because while the video decoder is common to all the claims, it is an ancillary element of the non-elected claims which are directed towards features which that are out of the purview of the decoding art (375/240.01-240.29) which is the domain of this art unit, AU: 2482. The non-elected claims would require this Examiner to give due consideration of search areas and search terms that are not commonly associated with the decoding art, and moreover, are distinct from the decoding art.

A). For claim 18, the Examiner notes that since it is directed towards a set-top box, the disparate claims of 725/131, which is usually analyzed by AU: 2423, would have to be considered.

B). For claim 19, the Examiner notes that since it is directed towards an optical video disc player, the disparate class of 386/131, which is usually analyzed by AU: 2484, would have to be considered.

C). For claim 20, the Examiner notes that since it is directed towards TV tuning, the disparate class of 348/588, which is usually analyzed by AU: 2422, would have to be considered.

Accordingly, the Examiner has shown that a wide swath of class/subclasses would have to be considered in order to address the non-decoder elements for the non-elected claims, and thus a search burden would be imposed upon the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-13 and 21 are rejected under 35 U.S.C. 101 as not falling within one of four statutory categories of inventions.

Supreme Court precedent and recent Federal Circuit decisions indicate a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. While the instant claim(s) recite a series of steps or acts to be performed, the claim(s) neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. For example there is not an apparatus mentioned either in the preamble nor in the subsequent limitations for executing the method nor is video decoding considered a transforming the signal, *In re Bilski, 88 USPQ2d 1385 (Fed. Cir. 2008).*

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-5, 9-12, 14, 17, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Srinivasan et al., (hereinafter referred to as "Srinivasan").

Srinivasan discloses a method (Srinivasan: figures 8-9), comprising receiving a video stream containing encoded flame based video information including an encoded first flame and an encoded second frame (Srinivasan: column 9, lines 60-67), the encoding of the second flame depends on the encoding of the first frame, the encoding of the second flame includes motion vectors indicating differences in positions between regions of the second flame and corresponding regions of the first frame (Srinivasan: column 10, lines 15-27), the motion vectors define the correspondence between regions of the second flame and corresponding regions of the first frame (Srinivasan: column 16, lines 24-35); decoding the first frame (Srinivasan: column 3, lines 50-61); determining a re-mapping strategy for video enhancement of the decoded first flame using a region-based analysis (Srinivasan: column 13, lines 45-67); re-mapping regions of

the decoded first flame according to the determined video enhancement re-mapping strategy for the first frame so as to enhance the first frame; recovering from the video stream, the motion vectors for the second frame; decoding the second frame (Srinivasan: column 12, lines 35-45); re-mapping regions of the second flame that correspond to regions of the first flame using the video enhancing re-mapping strategy for the first flame so as to enhance the second frame (Srinivasan: column 14, lines 1-40), as in claim 1.

Regarding claims 2-3, Srinivasan discloses the first flame is an I-flame and the second flame is a subsequent non-I-flame (Srinivasan: column 9, lines 50-60), and wherein: the video stream is an MPEG stream of packets (Srinivasan: column 3, lines 45-61); and the non-I-flame is a P-flame or a B-flame (Srinivasan: column 8, lines 15-30), as in the claims.

Regarding claim 4, Srinivasan discloses the video enhancement re-mapping strategy for the first flame includes re- mapping intensity values to adjust the contrast to enhance the first frame (Srinivasan: column 10, lines 55-67; column 11, lines 1-27), as in the claim.

Regarding claim 5, Srinivasan discloses wherein: the decoding of the second flame is performed using a reconstruction loop (Srinivasan: column 10, lines 15-27); and the video enhancement re-mapping of the second flame is done completely within the reconstruction loop so that motion vectors do not have to be stored (Srinivasan: column 12, lines 40-50), as in the claim.

Regarding claim 9, Srinivasan discloses the method further comprises selecting regions of the second flame depending on the respective values of motion vectors for the regions (Srinivasan: column 12, lines 35-50); and the re-mapping of the regions of the second flame

based on the video enhancement re-mapping strategy for the first flame is only performed for the selected regions of the second frame (Srinivasan: column 13, lines 25-67), as in the claim.

Regarding claims 10-12, Srinivasan discloses wherein: the method further comprises selecting regions of the second flame depending on whether the regions meet a similarity criteria depending similarity between the properties of the motion vectors for the region and the properties of the motion vectors for neighboring regions of the respective regions (Srinivasan: column 16, lines 45-57); and the re-mapping of the regions of the second flame based on the video enhancement re-mapping strategy for the first flame is only performed for the selected regions of the second frame (Srinivasan: column 13, lines 25-67), as in the claims.

Srinivasan discloses a video decoder (Srinivasan: figures 5-7), comprising: an input for receiving a video stream containing encoded frame based video information including an encoded first frame and an encoded second frame (Srinivasan: column 9, lines 60-67), the encoding of the second frame depends on the encoding of the first frame, the encoding of the second frame includes motion vectors indicating differences in positions between regions of the second frame and corresponding regions of the first frame (Srinivasan: column 10, lines 15-27), the motion vectors define correspondence between regions of the second frame and corresponding regions of the first frame (Srinivasan: column 16, liens 24-35); a decoding unit for decoding the frames, the decoding unit recovers the motion vectors for the second frame (Srinivasan: column 3, lines 50-61); processing means for determining a re-mapping strategy for video enhancement of the decoded first frame using a region-based analysis, and for re-mapping the first frame using the re-mapping strategy, and for re-mapping one or more regions of the

second frame depending on the re-mapping strategy for corresponding regions of the first frame (Srinivasan: column 14, lines 1-40), as in claim 14.

Regarding claim 17, Srinivasan discloses which the processing means operates the decoding unit (Srinivasan: column 6, lines 30-45), as in the claim.

Srinivasan discloses a method (Srinivasan: figures 8-9) comprising: receiving a video stream containing encoded information for groups of pictures (GOP) (Srinivasan: column 9, lines 60-67), the first picture in a GOP is an I-frame, and a subsequent picture in the GOP is a non-I-frame (Srinivasan: column 8, lines 15-30); decoding the I-frame (Srinivasan: column 3, lines 50-61); determining a re-mapping strategy of intensity values to change the contrast to enhance the decoded I-frame using a region-based intensity analysis (Srinivasan: column 13, lines 1-23); re-mapping the intensity values of the decoded I-frame according to the determined re- mapping strategy; recovering from the video stream (Srinivasan: column 12, lines 35-45), motion vectors for the subsequent non-I-frame, the motion vectors are differences in the positions of regions in the 1-frame and corresponding regions in the non-l-frame (Srinivasan: column 16, lines 20-55); decoding the subsequent non-l-frame; determining whether the similarity between corresponding regions meet a similarity criteria (Srinivasan: column 14, lines 1-15); selecting one or more regions of the non-I-frame depending on whether similarity criteria is met for a similarity between the regions of the non-I-frame and the corresponding regions of the I-frame (Srinivasan: column 28-55); re-mapping the intensity values of the selected regions of the non-I-frame depending on the re-mapping strategy of the corresponding regions of the I-frame so as to change the contrast to enhance the non-I-frame (Srinivasan: column 9, lines 50-60), as in claim 21.

Allowable Subject Matter

6. Claims 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claim 6-8 and 13 are would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 101 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)272-7337. The examiner can normally be reached on Monday-Friday 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Bank-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

asr
/Andy S. Rao/
Primary Examiner, Art Unit 2482
November 3, 2010